OPRB - Database Open/Close Processing

This Natural profile parameter is for:

- mainframes
- UNIX/OpenVMS and Windows

Mainframes

This parameter only applies to Adabas and VSAM databases.

It controls the use of database Open/Close commands during a Natural session.

Possible settings	OPRB=(*string*)	With this syntax, you specify an Open request for *all* databases.
	OPRB=(DBID=*nn1*,*string*,DBID=*nn2*,*string*, ...)	With this syntax, you specify an Open request for specific individual databases. As defined in the macro NTDB, the specified DBID identifies the type of database.
	OPRB=(*string*,DBID=*nn1*,*string*,DBID=*nn2*,*string*, ...)	With this syntax, you specify an Open request for specific individual databases and also a default Open request - the initial *string* - which applies to all databases for which you do not specify an individual *string*.
Default setting	none	
Dynamic specification	NO	
Specification within session	NO	

Generally, the OPRB parameter uses one of the above syntaxes (the possible contents of the *strings* depend on the database system).

Instead of using the OPRB parameter, you can also use the macro NTOPRB in the Natural parameter module NATPARM.

Dynamic OPRB with Natural Security

A dynamically specified OPRB parameter applies for all logons to libraries in whose security profiles no OPRB parameter is specified. For a logon to a library in whose security profile the OPRB parameter is specified, any dynamically specified OPRB parameter is ignored and the one from the security profile applies.

OPRB for VSAM

The *strings* which can be specified for VSAM databases are described under the OPRB Parameter for VSAM Databases in the Natural for VSAM documentation.

OPRB for Adabas

For Adabas databases, the OPRB parameter is required if either of the following conditions is true for the Natural session:

- An explicit list of Adabas files to be accessed/updated is to be provided. This is necessary, for example, if Adabas cluster updating or exclusive file control is to be requested.
- A single logical transaction is to span two or more Natural programs and, therefore, it is not desired to have Natural issue an END TRANSACTION and CLOSE command at the termination of any given Natural program.

If the OPRB parameter is omitted in the NATPARM module or OPRB=OFF is specified as a dynamic parameter, a Natural session commences with an Adabas Open command requesting UPD (access/update) to the Natural system file. Natural also issues RELEASE CID (Adabas RC) commands to release all ISN lists (ISN lists specified in a RETAIN clause of a Natural FIND statement are not released).

The Adabas record buffer to be used with the initial Adabas OP command can be explicitly provided. The format is similar to that used in an Adabas record buffer for the OP command with the exception that no blanks can be embedded, and the complete setting must be enclosed in parentheses (not apostrophes).

Example 1: `OPRB=(ACC=2,4,6,UPD=8.)` This specifies that Adabas Files 2,4 and 6 are to be made available for access only and that Adabas File 8 is to be made available for update (which also implies access).
Example 2: `OPRB=(EXU=1,2,3.)` This specifies that Adabas Files 1,2 and 3 are to be placed under exclusive control for this Natural session.

Combinations of the keywords ACC, UPD and EXU must follow the rules as defined in the relevant Adabas documentation. When these keywords are coded, Natural issues an OP command at the start of a Natural session and a CL at the end of the Natural session. At the end of a Natural program, only the required RC commands are issued to release held ISN lists.

In all of the above situations, the OP command, which is always issued at the start of a Natural session, contains in the Additions 1 field of the Adabas control block the User ID for the Natural session. In batch mode, this is the job name. In TP mode, this is the setting supplied at system initialization by the Natural interface module. In both cases, the setting used is available in the Natural system variable *INIT-USER.

UNIX/OpenVMS and Windows

This Natural profile parameter controls the use of the Adabas C "Open/Close" commands during a Natural session.

Possible settings	OFF	If the OPRB parameter is set to "OFF", a Natural session starts with an Adabas OP command requesting UPD (access/update) to the Natural system file. In addition, with each Natural program termination, Natural issues an END TRANSACTION statement if the Natural session is not at ET status. Natural also issues RELEASE CID (Adabas RC) commands to release all ISN lists (ISN lists specified in a RETAIN clause of a Natural FIND statement are not released).
	NOOPEN	If OPRB is set to "NOOPEN", Natural also issues an Adabas OP command requesting UPD (access/update) to the Natural system file at the start of a Natural session, but no END TRANSACTION statement is issued at the end of a Natural program. Commands are issued, however, to release all ISN lists (ISN lists specified in a RETAIN clause of a Natural FIND statement are not released). The NOOPEN setting thus enables a single logical transaction to span more than one Natural program.
	OPRB=(*string*)	You can specify an Open request in accordance with the syntax described below. See also the examples listed.
Default setting	OFF	
Dynamic specification	NO	
Specification within session	NO	

It is required if any of the following conditions are true:

- An explicit list of Adabas files to be accessed/updated is to be provided. This is necessary, for example, if Adabas cluster updating or exclusive file control is to be requested.
- A single logical transaction is to span two or more Natural programs and therefore, it is not desired that Natural issue an END TRANSACTION and CLOSE DIALOG statement at the termination of any given Natural program.
- The Adabas record buffer to be used with the initial Adabas OP command can be explicitly provided. To access databases you have to specify the DBIDs and file numbers with their corresponding access rights at the OPRB string.

Entries may not contain blanks, must be enclosed in parenthesis and must follow the rules defined in the relevant Adabas documentation.

In addition to the Adabas syntax, internal file numbers can be specified by using the "x-y" notation (that is, all numbers between x and y).

OPRB String Syntax

DBID=(*x*) Specifies the database for the following access right entries:

UPD=(*file-list*) Specifies update permission (read/write) for the files in the file list
ACC=(*file-list*) Specifies access permission (read) for the files in the file list
EXU=(*file-list*) Specifies exclusive update permission (exclusive read/write) for the files in the file list

The trailing record buffer dot ("**.**") can be omitted in the OPRB string because it is appended automatically.

DBID=0 specifies the default record buffer entry and can be omitted if it is the first DBID listed in the OPRB string. This default record buffer is taken if there is no specific entry for the requested database.

Combinations of the keywords ACC, UPD and EXU must follow the rules as defined in the relevant Adabas documentation. When these keywords are coded instead of "NOOPEN", Natural issues an OP command at the start of a Natural session and a CL command at the end of the session. At the end of a Natural program, only the required

RC commands are issued to release held ISN lists.

Example 1:

(ACC=2,3,4,DBID=15,UPD=3,4,ACC=5)

The following entries were defined:

**'UPD=3,4,ACC=5.' for DB 15
'ACC=2,3,4.' for other databases (DB 0)**

Example 2:

(DBID=15,ACC=2-7)

The following entry was defined:

'ACC=2,3,4,5,6,7.' for DB 15; access to other databases is permitted.

Example 3:

(DBID=0,ACC=2,3,4,5.)

The following entry was defined:

'ACC=2,3,4,5.' for all databases (DB 0).

> **Note:**
> If you have Natural Security installed, open/close processing works the same way as without Natural Security;
> the OPRB parameter in the security profile is provided for future use only.